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**Developing inquiries**

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In the final year of each of the International Baccalaureate (IB) programmes, all students complete an inquiry. In the Primary Years Programme (PYP), this inquiry is called the “exhibition” and in the Middle Years Programme (MYP), the “personal project”. Both these inquiries allow students to demonstrate their knowledge and understanding, apply their skills to explore issues of personal interest, and communicate this interest to others. In the Diploma Programme (DP), the “extended essay” encourages students to undertake a focused piece of original research in a subject of their choice and to present this research in a rigorous academic manner. All three inquiries are carried out over an extended period of time. They require commitment and the application of both academic and personal skills. The IB sometimes refers to these inquiries as “culminating experiences”, implying that in undertaking them the students are at the highest point of their programmes.

The first part of this chapter will describe the three culminating experiences and consider in what ways these experiences—the exhibition, the personal project and the extended essay—can, justifiably, be regarded as the highest point of each programme. The remainder of the chapter will explore ways in which these inquiry experiences may change and develop in the 21st century.

**Lifelong learning and the three inquiries**

The principle of original, personal research as a culmination of academic courses is well established in tertiary education. The major part of any doctoral degree is a report of research, the sharing of increased understanding with an academic community. Part of the final assessment of many master’s degrees is the presentation of an original research thesis that extends both personal and community understanding. The inquiry component of the IB programmes brings this principle into the primary and secondary levels. At the heart of the inquiries is the creation of understanding that is relevant to the learners and to their learning community.

As with doctorates and other higher degrees, it is the intellectual training—the academic integrity imaginatively applied—that underpins the inquiries across the three IB programmes and lays the foundations for lifelong learning. Both the exhibition and the personal project are much more demanding than traditional individual projects or “topics” undertaken in many elementary and middle schools. Over the past decades these traditional projects—often simply a collection of facts or “inert knowledge” related to a particular subject or theme, which may or may not be of any particular interest to the student—have earned a bad name. Both the PYP and the MYP experiences are much more demanding. In the exhibition, student inquiries are structured by a common conceptual idea and by “key concept questions”. Likewise, student inquiries in the personal project must “allow the student to investigate and focus on a theme, topic and or issue closely connected with at least one area of interaction of the MYP”.<sup>1</sup> I have already noted that the DP extended essay is a rigorous academic exercise. The inquiries of all three programmes are intellectually demanding at the appropriate developmental and/or alternative linguistic level of the individual student.

**Inquiries as rites of passage**

The three inquiries aim to be appropriate and significant events in the school career of IB students. In many schools they become a personal rite of passage, a challenge that generates anticipation of future inquiry experiences and an opportunity to celebrate the completion of a programme. As rites of passage the inquiries in each of the programmes are different. These differences can be explained in the larger context of the genesis of each programme. The extended essay is a highly academic personal research project appropriate for students seeking entry to university, reflecting the DP’s origins as a university preparation programme. The personal project recognizes the burgeoning independence, self-awareness and maturity of young adolescents, providing an opportunity for them to research and practically demonstrate their understanding in an area of their own interest. The exhibition provides an opportunity for younger students to select an issue, problem or area of interest that can be explored collaboratively.

The rite of passage is not only personal, it is also communal. PYP exhibitions are shared across the school community as a requirement. The MYP personal project presentations are increasingly shared, although it is not a formal requirement that they should be so. Increasingly in IB World Schools offering the DP, examples of good extended essays are published and made available in the school library. In two- or three-programme schools these cross-school events serve to remind older students of their past achievements at the exhibitions and personal projects. They can also be inspirational, giving younger students an exciting glimpse of what lies ahead. Teachers from across the whole school are often involved in the mentoring, supervising and assessing of students. This creates an opportunity for them to gain insights into the interests and capabilities of students to whom they might not



otherwise have access. Teachers of older students are often surprised at both the quality of the learning experience of younger students and the quality of the final product on display. The involvement in and sharing of the inquiries can create a mutually supportive learning community among students and teachers.

This involvement of a supportive learning community often extends beyond the school. Many student inquiries involve parents and the local, and sometimes wider, community. Schools take advantage of the inquiries to publicize the programmes to parents and others: if you want to understand the IB programmes, the school suggests, come and look at your children's work. Through involvement in the inquiry process and celebration, the parents and the community become part of the rite of passage. An inevitable and valued outcome of these inquiries is heightened parental and community understanding of the learning that takes place in and the values that underpin the IB programmes.

### The three inquiries

All three IB inquiries are an essential part of their programmes. They present students with opportunities to engage in learning that is relevant to their individual and community interests. Integral to that learning is reflection on the learning process.<sup>2</sup> In 2011 the IB can claim with justification that the inquiries are culminating experiences—high points in the three programmes, bringing together school communities and setting standards for learning.

### The Diploma Programme extended essay

The extended essay is an academic research exercise presented as a formal piece of scholarship of not more than 4,000 words. It is an in-depth, individual inquiry into a focused topic from the list of approved DP subjects—normally, but not exclusively, one of a student's six chosen DP subjects. It is intended to promote research skills, intellectual discovery and creativity and presents students with an opportunity to engage in personal research into a topic of their own choice. The final presented work—a formally structured essay in which ideas and findings are communicated in a reasoned and coherent manner—gives the student an opportunity to show knowledge, understanding and enthusiasm about a topic of his or her own choice (see text box).

The extended essay is externally assessed and, in combination with the grade for theory of knowledge (TOK), contributes up to three points to the total score for the diploma. The assessment of the extended essay in conjunction with TOK assessment is not a coincidence. One of the main aims of TOK is “to develop an awareness

of how knowledge is constructed, critically examined, evaluated and renewed by communities and individuals”.<sup>3</sup> The extended essay puts this objective into practice as students, through their extended essay, both construct knowledge and critically examine it.

#### Recent examples of the extended essay

Ahmed Nawab's motivation for his 2010 extended essay showed an interesting desire to expand his academic horizons. Ahmed (of the International School of Geneva, Campus des Nations) plans to study engineering and his higher level subjects were sciences and maths. With the addition of the languages this left him little experience of the arts and human sciences. Encouraged by his Diploma Programme coordinator, he chose as his research question: “To what extent can the publications of the pictures of Prophet Muhammad in the Danish *Jyllands-Posten* newspaper on 30th September 2005 be justified as an act of freedom of speech?” He began his essay with an overview of when and where the cartoons were published and briefly described the reactions that followed. He then analysed the arguments of those who see the publication as an act of free speech and those who see it as blasphemous and encroaching on the rights of others. When asked about his choice of subject, he explained that because he could obtain at most three points for the extended essay and TOK together out of a maximum of 45, he was prepared to take a risk and research something entirely different from his other subjects.

His fellow student, Josianne Galea, chose more conventionally. She intends to study English literature at university and used the opportunity of the extended essay to explore this academic interest. Her research question was: “How are supernatural creatures used in Shakespeare's plays, and what are their function?” She selected four plays—*A Midsummer Night's Dream*, *Hamlet*, *Macbeth* and *The Tempest*—and identified the supernatural creatures in them. By analysing their interaction with mortals, the imagery associated with them and their dramatic presence, she defined the function of these supernatural creatures in the context of the Elizabethan audience.

These two essays, different as they are, clearly fulfill the main aims of the inquiry. Both students have pursued independent and systematic research appropriate to the subject and have used creative and critical-thinking skills. More significantly, in terms of their future as lifelong learners, they have taken control of their own learning, identifying a knowledge problem and exploring it in some depth.



## The Middle Years Programme personal project

The personal project is a significant body of work produced over an extended period at the student's own initiative. It is an opportunity for students to produce work that challenges their creativity and thinking about issues of interest or concern to themselves. The personal project can take many forms, for example:

- an original work of art (visual, dramatic or performance)
- a written piece of work on a special topic (literary, social, psychological or anthropological)
- a piece of literary fiction (that is, creative writing)
- an original science experiment
- an invention or specially designed object or system
- the presentation of a developed business, management or organizational plan (for an entrepreneurial business or project), a special event, or the development of a new student or community organization.

The project reflects the student's experience and understanding of the five "areas of interaction" that form the core of the MYP:

- approaches to learning
- community and service
- health and social education
- environments
- human ingenuity.

These areas provide contexts and connections through which students, advised by their teachers, design and undertake their inquiries (see text box). At the end of the process students are required to write a personal reflective statement analysing their choice of topic, the process of completing their product, their level of engagement, and including a self-evaluation of what they have learned.

### Questions that have spurred successful personal projects

The following are examples of questions that were the basis for recent personal projects in the MYP at the International School of Geneva, Campus des Nations.

- How can one, through the cartooning style of other artists, depict adolescent life?

- How can I give the younger students an opportunity to experience the environment of public speaking?
- What can one learn about the manufacture of modern aircraft through the creation of a radio-controlled aeroplane?
- How can one apply Swiss principles of governance in a small Indian village?
- What can one learn about the violin through the process of constructing a model and exploring the history of violin-making?
- How can one use the laws of physics to create a BMX-specific half-pipe?

Once a student has established the question that will form the basis of the inquiry, he or she is free to choose whatever form is most appropriate for the personal project.

## The Primary Years Programme exhibition

The connection between the extended essay and the personal project can be clearly seen: both provide an opportunity for individuals to undertake work on a subject that interests them and challenges their creativity and intellect. The exhibition is fundamentally different in that it engages students in a collaborative inquiry that is a school-based, teacher-facilitated process culminating in a final celebratory event (see text box). The exhibition:

- centres on problems, issues or interests that are personally relevant to the students
- allows students to demonstrate understanding of the PYP key concepts, to demonstrate the development of the PYP transdisciplinary skills and to display the PYP attitudes
- provides opportunities for students to reflect on and assess their own and others' learning
- encourages student action as a natural and inevitable outcome of learning

- allows students to share their learning using a range of media and tools of communication.<sup>4</sup>

### An example of a PYP exhibition

One PYP exhibition at the International School of Geneva, Campus des Nations explored how “Working together we can make a difference within our communities.” The students began by identifying key questions to guide and focus their investigations of the problems, issues and concerns within the school community. These questions included the following.

- What problems exist within our school community?
- How is the school environment connected to learning?
- How has our school environment changed since last year?

They then organized the collection of data through:

- surveys of students
- interviews with a parent representative on the school’s board of governors, a student in grade 12 whose MYP personal project was on the school’s sports facilities, the president of the PTA and various members of the administration
- internet research about other international schools.

As this work progressed, small groups selected particular “lines of inquiry” that focused on the following questions.

- How can the playgrounds be improved?
- How can the classrooms be cooler?
- How can littering be stopped?
- How can we make our assemblies more interesting?

The actions taken by groups “to make a difference” included:

- setting up a donation box for money for new playground equipment
- writing a request to the PTA for a new climbing frame for next year

- getting and sharing information about plans for classroom fans
- presenting a skit in assembly about picking up litter
- organizing a student group who were in charge of planning and running assemblies.

The final culminating event took place when parents and other members of the school community came to learn about students’ work presented as visual displays and as student-created music, dance and other media presentations. The exhibition closed with group and individual reflection on and assessment of what had been learned. Student comments regarding what had been learned from the exhibition included the following.

- “Playground equipment is very important to students in our school.”
- “I learned so much about myself and how I can improve.”
- “Working together you accomplish so much more than you could on your own.”
- “It is never impossible to make a difference. All it takes is time and effort.”

### The way ahead

As the number of IB World Schools offering two or three IB programmes grows, and as technology makes communication simpler and more accessible, schools will learn from each other and adapt—and so, inevitably, will the inquiries. It is impossible to predict accurately how the inquiries will change in the next 15 years but certain trends seem to be emerging, the most obvious of which include:

- incorporating international-mindedness more formally and explicitly into each of the inquiries
- developing the IB community as a whole and the individual schools as a community of learners
- creating an assessment system aligned to support lifelong learning
- using technology to change the way in which students and teachers interact, plan, research, present and assess learning.



## International-mindedness

Jerome Bruner's essay "Culture, Mind and Education" convincingly argues that the mind reaches its full potential only through participation in the culture in which it is embedded.<sup>5</sup> This culture is not just the formal arts and sciences—the traditional "culture" of a society—but also its ways of perceiving, thinking, feeling and discoursing. Using the "cultural psychological" (or simply "culturism") approach to education, Bruner describes nine "tenets" of culturism, many of which parallel the characteristics that experienced IB educators incorporated into the IB learner profile. If Bruner is to guide our understanding of what changes might (and should?) take place in the culminating inquiries, we must look at the IB culture.

It could be argued that three statements define the IB culture. The first is the opening sentence of the organization's mission statement: "The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect." The second statement, the IB learner profile, stems from the mission, articulating what it means for individuals across the IB community. The third, the IB standards and practices, translates the implications of the mission statement for IB World Schools authorized to offer the IB programmes. All three of these statements set the ground rules for the culture in which the IB programmes, and therefore the IB communities, are, in Bruner's phrase, "embedded". The aim of all three IB programmes is to develop internationally minded young people who recognize their common humanity, share guardianship of the planet, and help to create a better and more peaceful world. At the core of this distinct culture is international-mindedness.

Let us look at international-mindedness, the core of the IB culture, from Bruner's perspectives. For example, the "externalization tenet" of culturism, which Bruner describes as "obvious and brimming with educational implications", states that "the main function of collective cultural activity is to produce 'works' including 'minor oeuvres', which are defined as 'those works of smaller groupings that give pride, identity and a sense of continuity to those who participate'".<sup>6</sup> These so-called minor oeuvres seem to correspond to IB inquiries. But if the inquiries are truly to create a culture of international-mindedness, which is at the core of the IB, they must be explicitly coupled with it.

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Currently, it is possible to spend two years studying for the IB diploma and to have only restricted contact with the IB mission and learner profile, and with content that recognizes our global consciousness. Too many IB programmes have limited international awareness or restricted cultural horizons, with the Western-focused ab initio French or German as the compulsory language, a little "world literature" in translation and only the recently introduced group 6 options—world theatre and dance—obliging global cultural comparisons.\* Teachers' notes in the science guides have sections relating their subject to "international dimensions", but these are advisory and can be overlooked. Some IB World Schools pay lip service to international-mindedness, but practical, direct involvement with it is often limited.

One of the recent innovative responses to this need to heighten awareness of international-mindedness in the Diploma Programme has been the introduction of the world studies extended essay, piloted in collaboration with Project Zero at Harvard University from 2008 to 2011. It is expected to be examined as part of the mainstream programme for the first time in 2013. It will offer an alternative to the current extended essay and will be different in two major ways. The first is that it will be interdisciplinary: the research will use "concepts, perspectives, findings or examples from at least two different subjects/disciplines". Second, it will "seek to advance students' global consciousness". Global consciousness is defined as "the capacity and the inclination to place people, objects, situations with which we come into contact, and the self within the broader matrix of our contemporary world".<sup>7</sup> The new world studies extended essay will offer an opportunity for the International Baccalaureate to be more effectively international.

The MYP and the PYP, without the compulsory external assessment of the DP, offer more opportunities for schools to ensure the three ideals of recognizing our common humanity, guarding the planet and working for a more peaceful world, but they do not explicitly demand heightening students' involvement with these ideals. If, as the IB claims, international-mindedness is at the heart of its culture then it must insist that the inquiry—the oeuvre, the main collective cultural activity of the programmes—be centred around one or more of these three stated ideals. One of the two extended essays described earlier in this chapter in the text box—the one exploring the issues of freedom of speech—clearly deals with international issues. The second, exploring the use of the supernatural in four of Shakespeare's plays, does not. The inquiry could have been made international by comparing Shakespeare's use of the supernatural with the supernatural in, say, West African novels of the 20th century. The MYP personal project exploring the process of building a violin could be internationalized by, for example, building a Chinese string instrument.

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\* Language ab initio courses are for beginners (that is, students who have no previous experience of learning the language they have chosen).



If the culture is to be internationally minded, the “minor oeuvres” must reflect that mindedness. The oeuvres of the inquiry seem a fitting place to reinforce and develop that major part of the IB culture.

## A community of learners

Another feature of Bruner’s culturism is the interactional tenet. Only a very small part of learning, Bruner argues, takes place in the congenial mould of the omniscient teacher explicitly telling or showing to learners something they know nothing about. The classroom, he insists, must be conceived as a community of learners. This community is a place where learners can and do help each other to learn. If IB classrooms are to be places where students learn, among other things, good judgment, self-reliance and self-motivated work, this concept of a community of learners will need to be articulated and taught across the programmes. The culminating experience should not be individuals asserting their individuality, but rather individuals working together to produce an inquiry that is a result of their communality, an inquiry in which members of a learning community collaborate. This is not collaboration for collaboration’s sake. Peter Johnston describes the relationship between the learning community’s growth and that of the individual as symbiotic: to become “accomplished at individual problem-solving requires the ability to profit from and internalize collaborative problem-solving ... Students learn how to use the diversity of experience, perspective and intellectual resources to solve problems that arise ... but also to ratchet forward [their] own intellectual development.”<sup>8</sup>

Christopher Dede would seem to have Bruner’s community of learners in mind when he argues strongly that schools should provide students with opportunities to collaborate on articulating and addressing together real-life “wicked problems” that no one profession, discipline or perspective can solve.<sup>9</sup> It is worth noting that the DP group 4 science project offers an option for schools to collaborate, and this option is increasingly being taken. In the 21st century the three programme inquiries will probably become “collaborative culminating experiences”, offering students and schools the opportunity to do something special collaboratively. The PYP exhibition is already doing this, but the personal project and the extended essay are the achievements of individuals. (Of course, one could argue that the personal project and the extended essay demand collaboration with a supervisor and also with the creators of past knowledge, in the same way that Newton claimed he had seen further by standing on the shoulders of giants.) If the future is about collaboration, the inquiries offer the obvious experiences for teaching and learning collaboratively. Before this can be done, however, research is necessary to define what collaboration implies in each of the inquiries.

Perhaps schools in the 21st century should consider expanding student-led inquiries to be both individual and collaborative. If this kind of learning is to be explicitly valued, time will need to be allocated within the school schedule for the preparation and sharing of inquiries. Currently the personal project and extended essay are in practice “add-ons”—homework that students complete outside of their class schedule. The issue of more and varied inquiries and the sharing and celebration of learning through them might prove the impetus to schools to rethink the four key programme structures Heidi Hayes Jacobs identifies as key to school change in the 21st century: scheduling, how students are grouped, how teachers are allocated, and the use of space, both real and virtual.<sup>10</sup>

Jerusha Conner supplies evidence to support the importance of Bruner’s interactional tenet to in-depth inquiries.<sup>11</sup> In her study she examines student engagement during the senior high school year in schools offering the IB Diploma Programme, focusing on their engagement with the “core project”, the extended essay. Conner quotes self-determination theory’s central argument that engagement rests in feelings of autonomy, belonging and competence and she argues that these feelings fit with the basic design of the extended essay assignment. Using a mixture of affective, behavioural and cognitive measures, she generated an index of engagement based on self-determination theory. Using this index she found “stark” differences in student engagement among the schools she studied. Differences in how the schools support and structure student work on the extended essay did not seem to affect engagement, and neither did the age of the IB system at the school or the demographic make-up of the students. The schools with students who were “fully engaged” in the extended essay, as distinct from “not at all engaged” or “purposefully engaged”, were schools that had a “cohort culture”. Conner describes cohort culture as the attitudes, values, beliefs and practices that students in a particular group negotiate through interaction with one another and in reaction to the requirements and expectations of their institutional context. Exactly as Bruner claims, it is the culture of the learner that determines the learning and values of the learner. Conner concludes that her findings call for a reconsideration of how and from whom students learn not just skills and information but also values, attitudes and practices. Conner concludes her study by, among other things, advising DP coordinators to attend to the student voice and consider how cohort cultures form and change over time.

Conner’s findings are entirely compatible with a contemporary phenomenon closely related to the concept of a community of learners, a phenomenon Jean Lave and Etienne Wenger call “communities of practice”. Wenger gives a simple definition: “Communities of Practice are groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly.”<sup>12</sup> For Wenger a primary focus of learning is social participation. The motivation to become a more central participant in a community of practice can provide a powerful incentive for learning. The PYP exhibition is certainly an example of a



community of practice. Such communities of practice will, I suggest, become an increasingly significant feature of IB World Schools in the 21st century.

## Assessment

*Ahead of the Curve*, edited by Douglas Reeves, looks at the role of assessment now and in the future. It shows clear indications that formative assessment (assessment **for** learning) is much more productive in terms of learning than summative assessment (assessment **of** learning).<sup>13</sup> This is particularly so when the summative assessment is expressed only as a grade. The IB has long been a champion of criterion-related assessment and the IB standards have emphasized the need for transparency of the criteria to students as they embark on new learning. However, these criteria are usually judged summatively. At the outset of any inquiry, the assumption should be that the process of the inquiry is more important than the product of the inquiry or the summative grade. The culture of the classroom and the collaboration of the learning community should guarantee that. Formative feedback should encourage the learner to see opportunities for improvement and development, and should give the learner confidence to produce an inquiry that gives a sense of personal ownership and achievement. This sense of achievement should whet learners' appetites for learning, ensuring "this love of learning will be sustained throughout their lives". The inquiries should be at the core of the IB's goal to inspire lifelong learners.

What Reeves does not emphasize is the importance the three IB inquiries place on self-assessment, reflection and reflexivity: learners becoming metacognitive, pulling back from involvement in the act of learning to reflect on the process of thinking and how they "know". Kathy Short of the University of Arizona argues that the power of these major inquiries is that the learner is challenged to go beyond familiar strategies of self-assessment and become more reflexive in analysing and critiquing their own thinking and work.<sup>14</sup> The need for this metacognition, important as it is for the individual's intellectual development, is reinforced when the inquiry is shared and the learners are accountable and forced to be aware of what they know and don't know. The increasing awareness and understanding of the relevance of metacognition to learning may well be one of the major assessment developments of the 21st century, with students becoming involved in the formal assessment of their own inquiries.

It is increasingly argued that effective professional development takes place within a school when teachers look collaboratively at student oeuvres.<sup>15</sup> The inquiries could certainly be a focus for teachers' professional learning, allowing them to look at student progress and learning over time. A professional "post-mortem" on the inquiries each year would give teachers and administrators opportunities to analyse the process with the aim of understanding how the learning process can be enhanced.

Heidi Hayes Jacobs says: "It is striking how rarely teachers who share a child over time and over years meet."<sup>16</sup> While this may not be accurate in all IB World Schools, it is likely that teachers seldom meet in vertical teams to focus on the culminating inquiries of the programmes. School heads and curriculum coordinators are very concerned about articulation of the curriculum from ages 3 to 18. Perhaps one of the relatively untapped sources for reviewing the curriculum is the in-depth study of the student learning that takes place during the culminating experiences of the programmes, focusing on what this tells us about what is being learned in our schools. Perhaps a system to analyse and study on an annual or biannual basis the process and products of student inquiries from across the programmes would provide a rich source of understanding of what is taught and what is learned in IB World Schools.

## New technology

The ease of communication that modern technology has brought could create a real international-mindedness. Teachers and students in IB World Schools could link up with their counterparts in any part of the world. The extended essay on free speech could become a dialogue between Ahmed in Geneva, Janine in Houston and Fatima in Beirut. Not only would students become internationally minded, they would also, through their inquiries, act collaboratively and internationally. In 2010 Beijing International School and Hong Kong Academy have both pioneered the use of technology in presenting their PYP exhibitions online, making them available to the world and inviting virtual participation.

Technology for networking and communicating across the wider IB community is already here. The 21st century will certainly bring sharing of the planning and process of the inquiry as well as promoting the products. The programme inquiries will demand that students make use of and develop the so-called "new literacies", which include computer literacy, information literacy, media literacy, television literacy and visual literacy.<sup>17</sup> The inquiries will demand that students use these literacies to pull their learning into focus, to comprehend, sift and synthesize and then to apply what they have learned to the domain of their choice.

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## Conclusion: The power of inquiry learning

The major feature of the inquiries that will influence education in the 21st century is the power of inquiry learning. The three programme inquiries are rites of passage, but they are more than that too: the learning, not just the content but also the process, is something students remember for the rest of their lives. Talk to IB graduates 10 years after they have left school and they remember their extended essays in detail, and are also able to recall the exhibition and their personal projects. The inquiries were theirs. They chose the subject, they decided on the inquiry methods, they presented and justified their conclusions, and they took action on what they learned.

Kathy Short has written widely about inquiry. She makes the point forcefully that inquiry “influences who learners become as human beings”.<sup>18</sup> Inquiry, she claims, transforms education from learning **about** to learning **to be**. The implication is that in taking control of your learning you take control of yourself and the community you are part of. The IB programmes of the 21st century will inevitably see an expansion of learning experiences developed from what we now call the “culminating experiences”. The real culmination experience of the programmes will be the sum total of all the lifelong learning that emerges from IB communities.

### About the author

Ann Hickey qualified as a primary and special needs teacher in Ireland and then later in her career studied for master's degrees in education and in history. Before teaching across the primary grades in international schools in the United States and Germany she taught for 10 years in a Van Leer experimental pre-school research project in Dublin. Since 1999 she has worked as the PYP regional manager for Africa, Europe, Middle East. Currently based in Geneva, she works as a curriculum manager in the access and advancement division of the IB.

Log on to the *Changing Face of International Education* wiki at <http://changingface.ibo.org> for more information, examples, resources and discussion related to this topic.

## Endnotes

- 1 International Baccalaureate. 2009. *MYP Personal project guide*. Cardiff, UK. International Baccalaureate. P2.

- 2 Dewey, J. 1938. *Education and Experience*. New York, NY. Collier Books.
- 3 International Baccalaureate. 2006. *Theory of knowledge guide*. Cardiff, UK. International Baccalaureate. P 5.
- 4 International Baccalaureate. 2008. *PYP Exhibition guidelines*. Cardiff, UK. International Baccalaureate.
- 5 Bruner, J. 1996. *The Culture of Education*. Cambridge, Mass. Harvard University Press. Chapter 1.
- 6 Ibid., p 22.
- 7 International Baccalaureate. 2009. *World studies guide* (version 1.0).
- 8 Johnston, P. 2004. *Choice Words*. Portland, ME. Stenhouse Publishers. P 73.
- 9 Dede, C. April 2010. IB Peterson Symposium presentation. Cardiff, UK.
- 10 Jacobs, HH. 2009. *Curriculum 21*. Alexandria, VA. ASCD. Pp 60–79.
- 11 Conner, JO. 2007. “Student engagement during the senior year: experiences with the IB Diploma Programme's extended essay”. PhD dissertation. Stanford University.
- 12 “Communities of Practice (Lave and Wenger)”. 2008. <http://www.learning-theories.com/communities-of-practice-lave-and-wenger.html>. Accessed on 18/10/2010.
- 13 Reeves, D (ed). 2007. *Ahead of the Curve*. Bloomington, IN. Solution Tree Press.
- 14 Short, K. 2010. Personal correspondence with the author.
- 15 Fullan, M, Hill, P and Crévoila, C. 2006. *Breakthrough*. Thousand Oaks, CA. Corwin Press.
- 16 Jacobs, *Curriculum 21*. Chapter 4. P 72.
- 17 Semali, L. November 2001. “Defining New Literacies in Curricular Practice”. *Reading Online*. Vol 5, number 4. [http://readingonline.org/newliteracies/lit\\_index.asp?HREF=semali1/index.html](http://readingonline.org/newliteracies/lit_index.asp?HREF=semali1/index.html).
- 18 Short, K. 2009. “Inquiry as a stance on curriculum”. In Simon Davidson and Steven Carber (eds), *Taking the PYP Forward*. Woodbridge, UK. John Catt Educational Ltd. Pp 11–25.